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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,460	09/28/2001	Haruchika Ishii	214412US0TTCD	1716

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ALEXANDRIA, VA 22314

EXAMINER

DOVE, TRACY MAE

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 12/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

068

Office Action Summary

Application No.

09/964,460

Applicant(s)

ISHII ET AL.

Examiner

Tracy Dove

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10, 11 and 14 is/are rejected.
- 7) ☒ Claim(s) 1-9, 12, 13 and 15-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4, 7</u> . | 6) <input type="checkbox"/> Other: |

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Claim 6 recites "a polymeric compound and a derivative thereof", which should be amended to recite "a polymeric compound or a derivative thereof".

Claim 13 is objected to because "whereinthickness" should recite "wherein thickness".

Claim 14 is objected to because "whereinthe" should recite "wherein the".

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10, 11 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 10 recites "the additive includes one of: . . . and", which is confusing because it is unclear which of the limitations following "the additive includes one of" are required by the claim.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: it is unclear how the organic acid and the composition of the oxide coating film are related. The amount of organic acid does not include any units and the composition formula for the oxide coating film is confusing.

Allowable Subject Matter

Claims 1-17 would be allowable if rewritten or amended to overcome both the rejection(s) under 35 U.S.C. 112, second paragraph, and the objections set forth in this Office action.

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DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statements (IDS) submitted on 12/26/01 and 5/21/03 have been considered by the examiner.

Specification

The disclosure is objected to because of the following informalities: on at least page 15, lines 23-page 16, line 1; page 22, line 25; page 33, line 24; and page 34, line 16 the specification recites improper units for the thickness of components of the battery. Correction is required.

Claim Objections

Claims 1-17 are objected to because of the following informalities: the claims recite improper Markush group language. Specifically, the claims recite "selected from a group of" or "selected from" instead of the proper language "selected from the group consisting of". See MPEP 2173.05(h). Appropriate correction is required.

Note claim 3 contains a Markush group with two "and" members closing the group. Examiner suggest amending claim 3 to recite "selected from the group consisting of a carboxylic group (COOH), a sulfonic group (SO₃H), hydroxyl group (OH), a nitro group (NO₂) and derivatives thereof." Note claim 4 is similarly objected to.

Claim 5 recites "additives are a polymeric compound and a derivative thereof", which should be amended to recite "additives are a polymer compound or a derivative thereof".

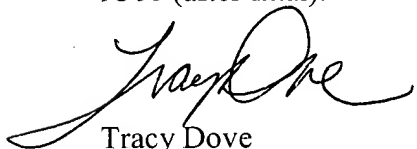
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The following is a statement of reasons for the indication of allowable subject matter: the claims are directed toward an electric cell comprising a negative electrode containing aluminum or an aluminum alloy and an electrolyte including at least one ion selected from the group consisting of a sulfate ion and a nitrate ion. The electrolyte further includes an additive of an organic acid having a functional group selected from the group consisting of a carboxylic group, a sulfonic group, a hydroxyl group and a nitro group.

The prior art (US6,589,692) teaches an electric cell comprising a negative electrode containing aluminum or an aluminum alloy and an electrolyte including at least one ion selected from the group consisting of a sulfate ion and a nitrate ion. However, the prior art does not teach the addition of an organic acid to the electrolyte.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is (703) 308-8821. The Examiner may normally be reached Monday-Thursday (9:00 AM-7:30 PM). My supervisor is Pat Ryan, who can be reached at (703) 308-2383. The Art Unit receptionist can be reached at (703) 308-0661 and the official fax numbers are 703-872-9310 (after non-final) and 703-872-9311 (after final).



Tracy Dove
Patent Examiner
Technology Center 1700
Art Unit 1745

December 4, 2003